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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,275

12/02/2003

Hui-Kai Chou

ADTP0112USA

1274

27765

7590

12/14/2004

(NAIPC) NORTH AMERICA INTERNATIONAL PATENT OFFICE

P.O. BOX 506

MERRIFIELD, VA 22116

EXAMINER

TRAN, THUY V

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/707,275	CHOU, HUI-KAI	
	<b>Examiner</b>	<b>Art-Unit</b>	
	Thuy V. Tran	2821	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> .           |

Continuation of Attachment(s) 6). Other: copy of translation of JP-07-272507.

### **DETAILED ACTION**

This is a response to the Applicant's filing on 12/02/2003. In virtue of this filing, claims 1-11 are currently presented in the instant application.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

2. The drawings submitted on 12/02/2003 are accepted.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 5-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinichi (JP 07-272507).

With respect to claim 1, Shinichi discloses, in Figs. 1-6, a backlight source disposed under a display panel (on the diffusion plate [3], not shown; see Fig. 5 and "PRIOR ART" translation, ¶ [0005], lines 3-4) comprising a plurality of parallel U-shaped lamps [6, 7]; each of the U-shaped lamps has (i) an inner surface, (ii) an outer surface, and (iii) a high voltage electrode [6a and 7a] (see Fig. 1) and a low voltage electrode [6b and 7b] (see Fig. 1); the high voltage electrodes [6a, 7a] are disposed equally on two sides (left and right sides; see Fig. 1) of the display panel.

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With respect to claim 2, Shinichi discloses that the backlight source is installed in a direct-type backlight panel unit (which is television, etc.; see “TECHNICAL FIELD” translation, line 2).

With respect to claim 3, Shinichi discloses, in Fig. 6, that the direct-type backlight unit comprises a diffuser [3] disposed between the display panel and the plurality of the U-shaped lamps [6, 7] for scattering a light source generated by the plurality of the U-shaped lamps to the display panel, a light diffuser plate [4] disposed between the diffuser [3] and the plurality of the U-shaped lamps [6, 7] for transmitting the light source to the diffuser [3], and a reflecting plate [1] disposed under the plurality of the U-shaped lamps [6, 7] for reflecting the light source to the light diffuser plate [4].

With respect to claim 5, Shinichi discloses that the U-shaped lamp is a cold cathode fluorescent lamp (CCFL) (see “DETAILED DESCRIPTION” translation; ¶ [0025], lines 1-2).

With respect to claim 6, Shinichi discloses, in Figs. 1-6, that the U-shaped lamps [6, 7] alternately face two opposite sides of the display panel.

With respect to claim 7, Shinichi discloses, in Figs. 1-6, that the inner surface of the U-shaped lamp [6] is adjacent to the inner surface of an adjacent U-shaped lamp [7].

With respect to claim 8, Shinichi discloses, in Figs. 1-6, that the outer surface of the U-shaped lamp [6] is adjacent to the outer surface of an adjacent U-shaped lamp [7].

With respect to claim 9, Shinichi discloses, in Figs. 1-6, that the backlight source further comprises a power supply (not shown) for providing current and a control circuit (which is inverter [11]; see Fig. 1) electrically connected to the power supply for driving the backlight source.

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With respect to claim 10, Shinichi discloses, in Fig. 1, that the control circuit [11] comprises one inverter [11] electrically connected to the high voltage electrode and the low voltage electrode of the corresponding U-shaped lamp.

With respect to claim 11, Shinichi discloses, in Figs. 1-6, that the inverter [11] inherently comprises a direct current/alternating current (DC/AC) inverter (since it contains two or more oscillating transistors; see "DETAILED DESCRIPTION" translation; ¶ [0004], line 3).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinichi (JP 07-272507) in view of Huang (Pub. No.: US 204/0114070 A1).

With respect to claim 4, Shinichi discloses all of the claimed subject matter, as expressly recited in claims-13, except for a housing being disposed under the reflecting plate for surrounding the reflecting plate and a bezel for assembling the display panel and the backlight source.

Huang discloses, in Figs. 4 and 9, a backlight unit comprising a housing [66] disposed under a reflecting plate [56] for surrounding the reflecting plate [56] (see ¶ [0023], lines 14-15) and a bezel (not shown) for assembling a display panel [41] and a backlight source [51] (see ¶ [0020], lines 4-6).

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It would have been obvious to one of ordinary skills in the art at the time of the invention to implement the backlight source device of Shinichi by providing a housing under the reflecting plate to surround the reflecting plate and a bezel to assemble the display panel and the backlight source for a complete display assembly since such an arrangement of parts for the stated purpose has been well known in the art as evidenced by the teachings of Huang (see Figs. 4 and 9).

***Citation of relevant prior art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Hsieh et al. (Pub. No.: US 2004/032725 A1) discloses a direct-type backlight unit for flat panel liquid crystal displays.

Prior art Hirakata et al. (U.S. Patent No. 6,636,190) discloses a LCD having an improved lighting device.

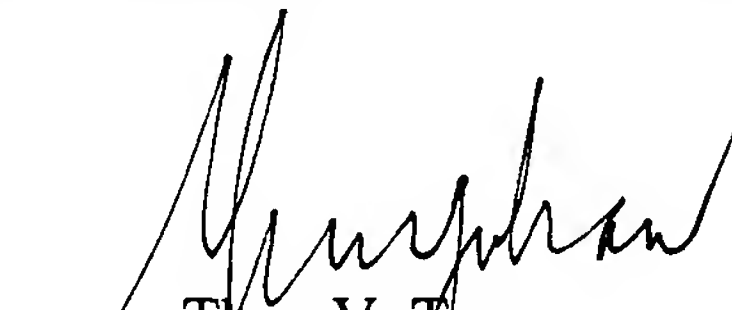
***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thuy V. Tran  
Primary Examiner  
Art Unit 2821

12/12/2004